



UNITED STATES PATENT AND TRADEMARK OFFICE

52
UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/766,820	01/22/2001	David C. Sudolcan	L-0170.23 (D-E)	2826
41418	7590	05/18/2005	EXAMINER	
LAW OFFICES OF CHRISTOPHER L. MAKAY 1634 MILAM BUILDING 115 EAST TRAVIS STREET SAN ANTONIO, TX 78205-1763			JACKSON, ANDRE K	
			ART UNIT	PAPER NUMBER
			2856	

DATE MAILED: 05/18/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/766,820

Applicant(s)

SUDOLCAN ET AL.

Examiner

André K. Jackson

Art Unit

2856

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 February 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 60 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 60 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
2. Claim 60 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bethuy in view of Kato and Bethuy et al. (5732563).

Regarding claim 60, Bethuy discloses a first probe extending into a liquid container; a second probe extending into a liquid container (38a, 38b); a controller coupled to the first and second probe (140); Bethuy discloses where both the first and second probes receives a signal indicating an insufficient amount of liquid in the liquid container when both the first probe and the second probe are contacted by liquid in the container the signal is attenuated to the ground probe indicating to the controller a sufficient amount of liquid in the liquid container (Columns 8 and 9). Bethuy does not disclose is where the controller outputs and receives a pulse signal received at the first probe and second probe. However, Kato discloses in the patent entitled "Method and apparatus for evaluating the performance of dielectric substances" where the controller outputs and receives a pulse signal (Column 13, lines 15-32, Column 15, lines 32-52). Therefore, it would have been obvious to one of ordinary skill in the art at the time the

invention was made to modify Bethuy to include where the controller outputs and receives a pulse signal. By adding this feature the impedance between the probes would be inversely proportional to the amount of probe surface area in contact with the liquid where the current flow is directly proportional to the liquid level. Bethuy does not disclose where the controller outputs the pulse signal to diminish plating of impurities onto the first probe and second probe from liquid contained in the liquid container. Bethuy et al. (5732563) disclose in the patent entitled "Electronically controlled beverage dispense" where the controller outputs a square wave pulse to the probes to diminish plating of impurities on the probes (Column 3, lines 3-13). Therefor it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Bethuy to include where the controller outputs the pulse signal to diminish plating of impurities onto the first probe and second probe from liquid contained in the liquid container. By adding this feature the apparatus would be able to prevent corrosive materials from damaging the system.

3. Claim 60 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bethuy in view of Lichti.

Regarding claim 60, Bethuy discloses a first probe extending into a liquid container; a second probe extending into a liquid

container (38a, 38b); a controller coupled to the first and second probe (140); Bethuy discloses where both the first and second probes receives a signal indicating an insufficient amount of liquid in the liquid container when both the first probe and the second probe are contacted by liquid in the container the signal is attenuated to the ground probe indicating to the controller a sufficient amount of liquid in the liquid container (Columns 8 and 9). Bethuy does not disclose is where the controller outputs and receives a pulse signal received at the first probe and second probe. However, Lichti discloses in the patent entitled "Apparatus and circuit for monitoring the ink supply and ink printer devices" where the controller outputs and receives a pulse signal (Abstract; Column 2, lines 8-16). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Bethuy to include where the controller outputs and receives a pulse signal. By adding this feature the impedance between the probes would be inversely proportional to the amount of probe surface area in contact with the liquid where the current flow is directly proportional to the liquid level. Bethuy does not disclose where the controller outputs the pulse signal to diminish plating of impurities onto the first probe and second probe from liquid contained in the liquid container. Bethuy et al. (5732563) disclose where the controller outputs a square wave pulse to the probes to

Art Unit: 2856

diminish plating of impurities on the probes (Column 3, lines 3-13).

Therefor it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Bethuy to include where the controller outputs the pulse signal to diminish plating of impurities onto the first probe and second probe from liquid contained in the liquid container. By adding this feature the apparatus would be able to prevent corrosive materials from damaging the system.

Response to Arguments

4. Applicant's arguments with respect to claim 60 have been considered but are moot in view of the new grounds of rejection.
5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the

Art Unit: 2856

advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to André K. Jackson whose telephone number is (571) 272-2196. The examiner can normally be reached on Mon.-Thurs. 7AM-4PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hezron Williams can be reached on (571) 272-2208. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

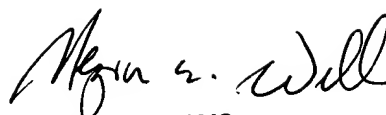
Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Art Unit: 2856

A.J.



May 11, 2005



HEZRON WILLIAMS
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800